

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF WASHINGTON  
AT SEATTLE

WILD FISH CONSERVANCY,

Plaintiff,

v.

SCOTT RUMSEY, in his official capacity  
as Acting Regional Administrator for the  
National Marine Fisheries Service, *et al.*,

Defendants,

and

ALASKA TROLLERS ASSOCIATION,  
and STATE OF ALASKA,

Defendant-Intervenors.

Case No. 2:20-cv-00417-RAJ-MLP

PLAINTIFF'S REPLY IN SUPPORT OF  
MOTION FOR A FINAL ORDER ON  
RELIEF AND FOR A TEMPORARY  
RESTRAINING ORDER AND/OR A  
PRELIMINARY INJUNCTION PENDING  
ENTRY OF A FINAL ORDER ON  
RELIEF

## TABLE OF CONTENTS

1		
2	TABLE OF AUTHORITIES.....	4
3	GLOSSARY OF ACRONYMS.....	9
4	I. INTRODUCTION.....	10
5	II. ARGUMENT.....	12
6	A. Motion to Strike Defendants’ Inadmissible Statements.....	12
7		
8	B. The Conservancy’s Experts’ Opinions Have Not Been	
9	Credible Challenged.....	16
10	1. Dr. Lacy’s opinions have not been credibly refuted. ....	16
11	2. The prey increase program will harm Chinook salmon	
12	without benefitting SRKW and has not undergone ESA	
13	and NEPA review. ....	19
14	a. The prey increase program will not benefit	
15	SRKWs. ....	19
16	b. The prey increase program harms threatened	
17	Chinook salmon. ....	20
18	3. Defendants have not credibly challenged Dr. Radtke’s	
19	opinion. ....	21
20	C. Defendants Fail to Overcome the Presumption of Vacatur. ....	22
21	1. Defendants have not shown that the violations are not	
22	serious. ....	23
23	2. The disruptive economic consequences do not	
24	significantly outweigh the seriousness of the	
25	violations such that vacatur is unwarranted.....	27
26	a. The economic consequences of vacating the ITS	
27	do not overcome the presumption of vacatur.....	27
28	b. Defendants have not demonstrated any meaningful	
29	disruptive consequences from vacatur of the prey	
	increase program. ....	29
	3. The 2019 SEAK BiOp should be vacated as requested. ....	30
	D. The Court Should Enjoin the Prey Increase Program. ....	30

1	E. Preliminary Relief Should Be Imposed Pending a Final Order.....	32
2	F. The Conservancy Satisfied Standing Requirements. ....	32
3	III. CONCLUSION.....	33

## TABLE OF AUTHORITIES

**Cases**

<i>11333 Inc. v. Certain Underwriters at Lloyd's</i> , 261 F. Supp. 3d 1003 (D. Ariz. 2017) .....	13
<i>All. for the Wild Rockies v. Cottrell</i> , 632 F.3d 1127 (9th Cir. 2011) .....	32
<i>All. for the Wild Rockies v. Marten</i> , No. CV 17-21-M-DLC, 2018 U.S. Dist. LEXIS 98555 (D. Mont. June 12, 2018).....	28
<i>All. for the Wild Rockies v. U.S. Forest Serv.</i> , 907 F.3d 1105 (9th Cir. 2018) .....	22
<i>Amoco Prod. Co. v. Vill. of Gambell</i> , 480 U.S. 531 (1987).....	31
<i>Aquall. v. U.S. Bureau of Reclamation</i> , 312 F. Supp. 3d 878 (E.D. Cal. 2018).....	24, 28
<i>Audubon Soc'y of Portland v. Jewell</i> , 104 F. Supp. 3d 1099 (D. Or. 2015) .....	16
<i>Avila v. Willits Env't Remediation Trust</i> , 633 F.3d 828 (9th Cir. 2011) .....	13
<i>Barnum Timber Co. v. U.S. Env't Prot. Agency</i> , 633 F.3d 894 (9th Cir. 2011) .....	33
<i>Bergen v. F/V St. Patrick</i> , 816 F.2d 1345 (9th Cir. 1987) .....	16
<i>Cal. Cmty. Against Toxics v. U.S. Env't Prot. Agency</i> , 688 F.3d 989 (9th Cir. 2012) .....	22
<i>Cal. Sea Urchin Comm'n v. Bean</i> , 883 F.3d 1173 (9th Cir. 2018) .....	33
<i>Ctr. for Food Safety v. Vilsack</i> , 753 F. Supp. 2d 1051 (N.D. Cal. 2010) .....	31
<i>Clausen v. M/V New Carissa</i> , 339 F.3d 1049 (9th Cir. 2003) .....	13
<i>Coal. to Protect Puget Sound Habitat v. U.S. Army Corps of Eng'rs</i> , 843 F. App'x 77 (9th Cir. 2021) .....	<i>passim</i>

1	<i>Coal. to Protect Puget Sound Habitat v. U.S. Army Corps of Eng'rs,</i>	
2	466 F. Supp. 3d 1217 (W.D. Wash. 2020),	
3	<i>aff'd</i> 843 F. App'x 77 (9th Cir. 2021).....	<i>passim</i>
4	<i>Cook Inletkeeper v. Raimondo,</i>	
5	541 F. Supp. 3d 987 (D. Alaska 2021) .....	24, 26, 27, 28
6	<i>Cottonwood Env't Law Ctr. v. U.S. Forest Serv.,</i>	
7	789 F.3d 1075 (9th Cir. 2015) .....	31
8	<i>Conner v. Burford,</i>	
9	848 F.2d 1441 (9th Cir. 1988) .....	21
10	<i>Crow Tribe of Indians v. Racicot,</i>	
11	87 F.3d 1039 (9th Cir. 1996) .....	14
12	<i>Daubert v. Merrell Dow Pharms., Inc. (Daubert I),</i>	
13	509 U.S. 579 (9th Cir. 1995).....	13
14	<i>Daubert v. Merrell Dow Pharms., Inc. (Daubert II),</i>	
15	43 F.3d 1311 (9th Cir. 1995) .....	13
16	<i>Dutta v. State Farm Mut. Auto. Ins. Co.,</i>	
17	895 F.3d 1166 (9th Cir. 2018) .....	15
18	<i>Ellis v. Smithkline Beecham Corp.,</i>	
19	No. C07-5302RJB,	
20	2008 U.S. Dist. LEXIS 60740 (W.D. Wash. Aug. 5, 2008) .....	12, 13
21	<i>Entrata, Inc. v. Yardi Sys.,</i>	
22	No. 2:15-cv-00102,	
23	2019 U.S. Dist. LEXIS 240024 (D. Utah Aug. 23, 2019) .....	15
24	<i>Env't Def. Ctr. v. Bureau of Ocean Energy Mgmt.,</i>	
25	36 F.4th 850 (9th Cir. 2022) .....	21, 31, 32
26	<i>Guidroz-Brault v. Mo. Pac. R.R. Co.,</i>	
27	254 F.3d 825 (9th Cir. 2001) .....	13, 14
28	<i>High Sierra Hikers Ass'n v. Blackwell,</i>	
29	390 F.3d 630 (9th Cir. 2004) .....	31
	<i>Humane Soc'y of the U.S. v. Locke,</i>	
	626 F.3d 1040 (9th Cir. 2010) .....	22
	<i>JL Bev. Co., LLC v. Jim Beam Brands Co.,</i>	
	828 F.3d 1098 (9th Cir. 2016) .....	12

1	<i>In re Clean Water Act Rulemaking,</i>	
2	568 F. Supp. 3d 1013 (N.D. Cal. 2021) .....	28
3	<i>Klamath-Siskiyou Wildlands Ctr. v. Nat'l Oceanic &amp; Atmospheric Admin.,</i>	
4	109 F. Supp. 3d 1238 (N.D. Cal. 2015) .....	<i>passim</i>
5	<i>League of Wilderness Defenders v. U.S. Forest Serv.,</i>	
6	No. 3:10-CV-01397-SI,	
7	2012 U.S. Dist. LEXIS 190899 (D. Or. Dec. 10, 2012) .....	26
8	<i>Little Butte Prop. Owners Water Ass'n v. Bradley,</i>	
9	No. 2:17-CV-162-RMP,	
10	2018 U.S. Dist. LEXIS 70501 (E.D. Was. Apr. 26, 2018) .....	15
11	<i>Maldonado v. Apple, Inc.,</i>	
12	No. 3:16-cv-04067-WHO,	
13	2021 U.S. Dist. LEXIS 92483 (N.D. Cal. May 14, 2021) .....	15
14	<i>Metcalf v. Daley,</i>	
15	214 F.3d 1135 (9th Cir. 2000) .....	11, 26
16	<i>Mike's Train House Inc. v. Lionel, L.L.C.,</i>	
17	472 F.3d 398 (6th Cir. 2006) .....	15
18	<i>Nat'l Family Farm Coal. v. U.S. Env't Prot. Agency,</i>	
19	966 F.3d 893 (9th Cir. 2020) .....	24, 25
20	<i>Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.,</i>	
21	886 F.3d 803 (9th Cir. 2018) .....	31
22	<i>N. Plains Res. Council v. U.S. Army Corps of Eng'rs,</i>	
23	460 F. Supp. 3d 1030 (D. Mont. 2020) .....	28, 29
24	<i>Oglala Sioux Tribe v. U.S. Nuclear Regul. Comm'n,</i>	
25	896 F.3d 520 (D.C. Cir. 2018) .....	25
26	<i>Orr v. Bank of Am.,</i>	
27	285 F.3d 764, 773 (9th Cir. 2002) .....	12, 14
28	<i>Pollinator Stewardship Council v. U.S. Env't Prot. Agency,</i>	
29	806 F.3d 520 (9th Cir. 2015) .....	22, 26
	<i>Puget Soundkeeper All. v. Wheeler,</i>	
	No. C15-1342-JCC,	
	2018 U.S. Dist. LEXIS 199358 (W.D. Wash. Nov. 26, 2018) .....	23, 27, 30
	<i>Ramsey v. Kantor,</i>	
	96 F.3d 434 (9th Cir. 1996) .....	24

1	<i>Robertson v. Methow Valley Citizens Council</i> ,	
2	490 U.S. 332 (1989).....	25
3	<i>Se. Alaska Conservation Council v. U.S. Forest Serv.</i> ,	
4	468 F. Supp. 3d 1148 (D. Alaska 2020) .....	28
5	<i>Shakur v. Schriro</i> ,	
6	514 F.3d 878 (9th Cir. 2008) .....	13
7	<i>Sierra Forest Legacy v. Sherman</i> ,	
8	646 F.3d 1161 (9th Cir. 2011) .....	16
9	<i>Sovereign Iñupiat for a Living Arctic v. Bureau of Land Mgmt.</i> ,	
10	555 F. Supp. 3d 739 (D. Alaska 2021) .....	24, 28
11	<i>Tenn. Valley Auth. v. Hill</i> ,	
12	437 U.S. 153 (1978).....	10, 12, 23, 28
13	<i>Travelers Cas. &amp; Sur. Co. v. Telstar Canst. Co.</i> ,	
14	252 F. Supp. 2d 917 (D. Ariz. 2003) .....	14
15	<i>United States ex rel. CK One Consulting Servs. v. A.W. Schell Elec. Servs.</i> ,	
16	No. C13-408-RAJ,	
17	2014 U.S. Dist. LEXIS 58137 (W.D. Wash. Apr. 24, 2014).....	12
18	<i>Wash. Toxics Coal. v. Env't Prot. Agency</i> ,	
19	413 F.3d 1024 (9th Cir. 2005) .....	23
20	<i>W. Watersheds Project v. Kraayenbrink</i> ,	
21	632 F.3d 472 (9th Cir. 2011) .....	23
22	<i>W. Watersheds Project v. Zinke</i> ,	
23	441 F. Supp. 3d 1042 (D. Idaho 2020) .....	23, 26, 27
24	<i>W. Watersheds Project v. Zinke</i> ,	
25	336 F. Supp. 3d 1204 (D. Idaho 2018) .....	26, 32
26	<i>White v. Ford Motor Co.</i> ,	
27	312 F.3d 998 (9th Cir. 2002) .....	13, 14
28	<i>Wild Earth Guardians v. Steele</i> ,	
29	545 F. Supp. 3d 855 (D. Mont. 2021).....	25
	<i>Wild Fish Conservancy v. Nat'l Park Serv.</i> ,	
	No. C12-5109-BHS,	
	2014 U.S. Dist. LEXIS 105689 (W.D. Wash. July 31, 2014) .....	26

1	<i>Wild Fish Conservancy v. Salazar,</i>	
2	628 F.3d 513 (9th Cir. 2010) .....	21

### **Statutes**

4	16 U.S.C. § 1536.....	24
5		
6	16 U.S.C. § 1539.....	24

### **Other Authorities**

9	Fed. R. Civ. P. 56.....	12
10		
11	Fed. R. Civ. P. 65.....	12
12		
13	Fed. R. Evid. 602 .....	12
14		
15	Fed. R. Evid. 602 advisory committee’s note to proposed rule.....	12
16		
17	Fed. R. Evid. 701 .....	13
18		
19	Fed. R. Evid. 701 advisory committee’s note to 2000 amendment .....	13, 14
20		
21	Fed. R. Evid. 702 advisory committee’s note to 2000 amendment .....	14, 15



**GLOSSARY OF ACRONYMS**

AR	Administrative Record
ATA	Alaska Trollers Association
BiOp	Biological Opinion
CYER	Calendar Year Exploitation Rates
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
ISBM	Individual Stock-Based Management
ITS	Incidental Take Statement
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
pHOS	Proportion of Hatchery-Origin Spawners
PVA	Population Viability Analysis
SAR	Smolt-to-Adult Ratios
SEAK	Southeast Alaska
SRKW	Southern Resident killer whale

1 **I. INTRODUCTION.**

2 The Court found that violations of the Endangered Species Act (“ESA”) and the National  
 3 Environmental Policy Act (“NEPA”) permeated National Marine Fisheries Service’s (“NMFS”) approval of salmon fisheries for Southeast Alaska. The presumptive remedy for these violations  
 4 is vacatur of the entire approval of the fisheries. Wild Fish Conservancy (“Conservancy”) has  
 5 nonetheless proposed tailored relief to protect ESA-listed species while minimizing economic  
 6 impacts. NMFS, Alaska Trollers Association (“ATA”), and Alaska (collectively, “Defendants”) have declined to participate in such efforts, insisting the violations are not significant and that the  
 7 unlawful actions should continue undeterred for an indefinite period. In doing so, Defendants  
 8 failed to meet their burden in overcoming the presumption of vacatur.

9 Congress enacted the ESA to “halt and reverse the trend toward species extinction,  
 10 whatever the cost.” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978). NMFS, charged with  
 11 implementing the ESA, is failing at this objective for the Southern Resident Killer Whale  
 12 (“SRKW”) and many Chinook salmon evolutionarily significant units (“ESUs”). The SRKW  
 13 population is critically small and vulnerable due to insufficient Chinook salmon available for  
 14 prey. Primary factors contributing to the loss of Chinook salmon include harvests and hatcheries.

15 Yet, when reviewing salmon harvests that will contribute to the continued decline of  
 16 SRKWs and Chinook salmon, NMFS did not limit the harvest to protect the species. Instead,  
 17 NMFS decided to increase hatchery production and approve the harvests based on its speculation  
 18 that producing more hatchery fish will benefit SRKW without jeopardizing Chinook salmon. In  
 19 doing so, NMFS violated the ESA by relying on uncertain and undeveloped mitigation and by  
 20 failing determine whether the mitigation itself may jeopardize threatened Chinook salmon. Dkt.  
 21 111 at 25–33. Moreover, NMFS violated NEPA by making these decisions without any of the  
 22 required reviews or public processes, and by not considering alternatives. *See id.* at 34–38.

23 The “presumptive remedy” for the violations is “full vacatur” of the 2019 biological  
 24 opinion (“BiOp”) and incidental take statement (“ITS”) for Southeast Alaska salmon fisheries  
 25 (“2019 SEAK BiOp”). *See Coal. to Protect Puget Sound Habitat v. U.S. Army Corps of Eng’rs*,

843 F. App'x 77, 80 (9th Cir. 2021). The Conservancy proposes relief on only two aspects of NMFS's unlawful decisions while it remedies the violations. First, the Conservancy requests vacatur of the ITS to the extent it authorizes "take" from harvest of Chinook salmon in the winter and summer seasons of the commercial troll fishery. This relief is needed to help prevent further loss of SRKWs while NMFS complies with the ESA and NEPA for the fisheries. Second, the Conservancy requests the Court enjoin the prey increase program and vacate portions of the 2019 SEAK BiOp related thereto. This relief is needed to reduce harm to wild salmon populations from the unlawful hatchery production. Moreover, this relief is needed to ensure that NMFS carefully considers the prey increase program instead of providing post hac rationalizations for prior unlawful decisions. *See Metcalf v. Daley*, 214 F.3d 1135, 1142, 1146 (9th Cir. 2000).

Defendants urge that, despite the strong presumption of vacatur, all salmon fisheries and the prey increase program should be allowed to continue uninterrupted indefinitely while NMFS attempts to remedy its ESA and NEPA violations. Defendants fail to meet their burden for such extraordinary relief. The violations are among the most serious legal errors of the ESA and NEPA possible, undermining central legislative objectives. Defendants halfhearted arguments to the contrary are wholly unconvincing. While there will be some disruptive economic consequences, the Conservancy has sought—without any participation from Defendants—to minimize those impacts by focusing the relief. Those economic consequences do not overcome the seriousness of NMFS's violations, particularly given the threats to ESA-listed species.

NMFS insists that the Court should not enjoin the prey increase program because it is needed to provide prey for SRKWs. However, NMFS has not produced anything to show that this program will help SRKWs beyond unsupported conclusory statements. Hatchery production throughout the Pacific Northwest is harming wild salmon, reducing productivity of wild populations. The prey increase program will exacerbate these impacts, further reducing the numbers of wild Chinook salmon. Nothing in the 2019 SEAK BiOp, the administrative record, or NMFS's declarations demonstrate that this program would provide a net benefit to SRKW. On the other hand, it is beyond credible dispute that the increased hatchery production is harming

Chinook salmon. NMFS has not met its burden in opposing relief against this program.

No party disputes that the current conditions of SRKWs are “unprecedented,” with more than a fifth of the critically small population vulnerable and emaciated. *See* Dkt. 127-1 ¶¶ 11, 14. The SRKW requires immediate relief, not a continuation of past practices that have pushed the species to the edge of extinction. *See id.* ¶ 18. Congress intended for endangered species to be prioritized over monetary and other interests, and the Supreme Court has instructed that courts should “enforce [that Congressional prioritization] when enforcement is sought.” *Hill*, 437 U.S. at 174, 194 (“Congress has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities, thereby adopting a policy which it described as ‘institutionalized caution.’”). The Conservancy respectfully requests that its motion on relief, Dkt. 127 (“Motion”), be granted.<sup>1</sup>

## II. ARGUMENT.

### A. Motion to Strike Defendants’ Inadmissible Statements.

“A trial court can only consider admissible evidence” in ruling on a dispositive motion. *See Orr v. Bank of Am.*, 285 F.3d 764, 773 (9th Cir. 2002); *see also United States ex rel. CK One Consulting Servs. v. A.W. Schell Elec. Servs.*, No. C13-408 RAJ, 2014 U.S. Dist. LEXIS 58137, at \*8–10 (W.D. Wash. Apr. 24, 2014). A declaration must be based on personal knowledge, set out facts that would be admissible in evidence at trial, and show that the declarant is competent to testify to the matters stated. *See* Fed. R. Civ. P. 56(c)(4); *JL Bev. Co., LLC v. Jim Beam Brands Co.*, 828 F.3d 1098, 1110 (9th Cir. 2016); *cf.* Fed. R. Civ. P. 65(a)(2).

A lay witness must provide “evidence . . . sufficient to support a finding that the witness has personal knowledge of the matter.” Fed. R. Evid. 602. The testimony must be based upon what the witness saw, heard, or otherwise experienced. Fed. R. Evid. 602 advisory committee’s note to proposed rule. “Conclusory affidavits fail to establish foundation.” *Ellis v. Smithkline Beecham Corp.*, No. C07-5302RJB, 2008 U.S. Dist. LEXIS 60740, at \*7 (W.D. Wash. Aug. 5,

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<sup>1</sup> Defendants do not oppose the Conservancy’s request for the Court to remand the 2019 SEAK BiOp to NMFS.

2008); *see Shakur v. Schriro*, 514 F.3d 878, 889–90 (9th Cir. 2008). A lay witness may only provide opinion testimony if it is “rationally based on the witness’s perception.” Fed. R. Evid. 701(a). While a lay witness may testify to opinions resulting from particularized knowledge gained through its occupation, they may not testify “on scientific, technical, or other specialized knowledge.” Fed. R. Evid. 701 & advisory committee’s note to 2000 amendment.

Experts with sufficient knowledge, skills, experience, training, or education may testify on opinions not based on personal knowledge if the testimony is both relevant and reliable. *See Daubert v. Merrell Dow Pharms., Inc. (Daubert I)*, 509 U.S. 579, 597 (1993). When considering an expert’s qualifications, a court examines “whether those qualifications provide a foundation for a witness to answer a specific question.” *11333 Inc. v. Certain Underwriters at Lloyd’s*, 261 F. Supp. 3d 1003, 1027 (D. Ariz. 2017); *see, e.g., Avila v. Willits Env’t Remediation Trust*, 633 F.3d 828, 839 (9th Cir. 2011). An expert, “testifying outside his area of expertise, ought not to be anointed with ersatz authority as a court-approved expert witness . . . .” *White v. Ford Motor Co.*, 312 F.3d 998, 1008–09 (9th Cir. 2002). Scientific evidence is reliable “if the principles and methodology used by an expert are grounded in the methods of science.” *Clausen v. M/V New Carissa*, 339 F.3d 1049, 1056 (9th Cir. 2003). The focus is the expert’s basis for forming its opinion. *See Daubert v. Merrell Dow Pharms., Inc. (Daubert II)*, 43 F.3d 1311, 1316 (9th Cir. 1995). If the factual basis for the opinion is not disclosed, the testimony should be excluded. *Guidroz-Brault v. Mo. Pac. R.R. Co.*, 254 F.3d 825, 830–32 (9th Cir. 2001).

The Court should strike portions of the declarations of Lynn Barre, Allyson Purcell, Paul Olson, Josh Keaton, Tad Fujioka, and Danielle Evenson. *See* Dkts. 129, 131, 133-1, 133-2, 133-3, 135. Ms. Barre and Ms. Purcell are upper management NMFS employees who oversee biologists working in various programs. Dkt. 43-3 ¶¶ 1–3; Dkt. 43-5 ¶ 1–2. They do not provide resumes or identify scientific experiences in analyzing impacts and benefits of fisheries and hatcheries on SRKWs and salmon. *See generally* Dkts. 43-3, 43-5, 93-3, 93-4, 133-2, 133-3.

As a few examples, Ms. Barre and Ms. Purcell have not provided **any** qualifications supporting their ability to opine on: (1) impacts to prey availability from halting fisheries or from

the prey increase program; (2) genetic impacts to wild Chinook salmon from the prey increase program, and derivative consequences on SRKWs; and (3) SRKWs in general. *See generally* Dkts. 43-3, 43-5, 93-3, 93-4, 133-2, 133-3; *see Avila*, 633 F.3d at 839. Provided herewith as an Appendix are their declarations with unqualified opinions highlighted in green.

Ms. Barre and Ms. Purcell provide no (or unreliable) factual support for most opinions. For example, Ms. Barre critiques Dr. Lacy's opinions and makes her own generic predictions about prey availability based on the fisheries and prey increase program. *E.g.*, Dkt. 133-2 ¶¶ 9–17. She cites no factual support for many conclusions, while parroting the 2019 SEAK BiOp for others. *Id.*; *Guidroz-Brault*, 254 F.3d at 830–32. The portions of Ms. Barre's and Ms. Purcell's declarations with unsupported opinions are underlined in the Appendix in blue.<sup>2</sup>

Ms. Barre and Ms. Purcell have not established themselves as experts and much of their declarations are improper: (1) hearsay; (2) testimony without foundation; and (3) lay opinions. *White*, 312 F.3d at 1008–09; *Orr*, 285 F.3d at 778; *Travelers Cas. & Sur. Co. v. Telstar Canst. Co.*, 252 F. Supp. 2d 917, 924–25 (D. Ariz. 2003); Fed. R. Evid. 701 & advisory committee's note to 2000 amendment. They refer to "NMFS" and "we" instead of indicating personal observations, making it impossible to determine what is based on personal knowledge and what is not. The portions of the declarations involving impermissible hearsay are highlighted in yellow in the Appendix, and nearly all remaining portions aside from their introductions are improper.

The economic opinions of Paul Olson and Josh Keaton should be stricken as unqualified and unreliable expert testimony, or impermissible lay opinions or lay testimony lacking personal knowledge. Mr. Keaton and Mr. Olson are not economists. Dkt. 133-1 ¶¶ 1–2; Dkt. 131 ¶¶ 1–11. Mr. Olson, a troller and attorney who claims to have "extensive familiarity" with economic impact analyses, has not provided any relevant qualifications. Dkt. 131 ¶¶ 2, 9, 11; *see* Fed. R. Evid. 702 advisory committee's note to 2000 amendment (requiring explanation of witness's experience). Mr. Olson and Mr. Keaton misapply the basic economic term "output," which "is

<sup>2</sup> Ms. Purcell also provides multiple plainly impermissible legal opinions, underlined in the Appendix in orange. *E.g.*, Dkt. 133-3 ¶ 5; *Crow Tribe of Indians v. Racicot*, 87 F.3d 1039, 1045 (9th Cir. 1996).

inappropriate” “when attempting to disprove the accuracy of a model that uses generated annual income” and which “does not provide meaningful insight” in this context. *E.g.*, Dkt. 133-1 ¶¶ 36–38, 40–41; Dkt. 131 ¶¶ 16–22, 24, 41, 44; Second Decl. of Hans Radtke (“Second Radtke Decl.”) ¶¶ 7–8.<sup>3</sup> The Court should strike these improper expert opinions and analyses. Dkt. 133-1 ¶¶ 31–41; Dkt. 131 ¶¶ 12–44; *see Mike’s Train House Inc. v. Lionel, L.L.C.*, 472 F.3d 398, 408 (6th Cir. 2006); *Maldonado v. Apple, Inc.*, No. 3:16-cv-04067-WHO, 2021 U.S. Dist. LEXIS 92483, at \*82–85 (N.D. Cal. May 14, 2021); *Entrata, Inc. v. Yardi Sys.*, No. 2:15-cv-00102, 2019 U.S. Dist. LEXIS 240024, at \*22–24 (D. Utah Aug. 23, 2019) (excluding testimony that criticizes damages modeling from a non-economist with no training in econometrics).

ATA submits the declaration of Tad Fujioka, a troller with a bachelor’s degree in engineering and applied sciences who claims to have “an extensive background in data analysis.” Dkt. 129 ¶ 2. Mr. Fujioka does not provide a resume or explain his experience in data analysis. He has not identified any specialized expertise that would qualify him to opine on assessing the impacts of shutting troll fisheries or to criticize Dr. Lacy’s population viability analysis (“PVA”). *See* Dkt. 129 ¶¶ 21–35. Similarly, Ms. Evenson, a fishery scientist for Alaska, while likely qualified to opine on certain matters related to fisheries or hatcheries, has not demonstrated any experience in the specialized sciences of fish genetics or PVA modeling. *See* Dkt. 135 ¶¶ 2–5. Ms. Evenson does not identify qualifications to opine on the impacts to the viability of SRKWs from enjoining the fisheries, or to opine on the impacts to Chinook and various fisheries from enjoining the prey increase program. *Id.* ¶¶ 9, 12–21. These portions of Mr. Fujioka’s and Ms. Evenson’s declarations should be stricken. Fed. R. Evid. 702 advisory committee’s note to 2000 amendment; *Avila*, 633 F.3d at 839; *Little Butte Prop. Owners Water Ass’n v. Bradley*, No. 2:17-CV-162-RMP, 2018 U.S. Dist. LEXIS 70501, at \*20–24 (E.D. Wash. Apr. 26, 2018) (striking experts because of failure to demonstrate experience or qualifications in the field of discipline).

<sup>3</sup> The Conservancy is reluctant to provide new material with its reply, but finds it necessary to submit the Second Radtke Declaration to address unforeseen and unqualified criticisms of his prior economic analysis. *Dutta v. State Farm Mut. Auto. Ins. Co.*, 895 F.3d 1166, 1172 (9th Cir. 2018); Local Rule 7(b)(3).



1 These materials, if not stricken, should be afforded little weight given the deficiencies  
2 discussed above. *See Bergen v. F/V St. Patrick*, 816 F.2d 1345, 1352 n.5 (9th Cir. 1987).

3 **B. The Conservancy's Experts' Opinions Have Not Been Credible Challenged.**

4 The Conservancy presented opinions from four highly qualified experts. Defendants seek  
5 to refute some of those opinions, largely with declarants that lack the requisite expertise. At this  
6 remedy phase of the litigation, Defendants' declarants are treated like any other witnesses, with  
7 no presumption of deference. *See Sierra Forest Legacy v. Sherman*, 646 F.3d 1161, 1185–86  
8 (9th Cir. 2011); *Audubon Soc'y of Portland v. Jewell*, 104 F. Supp. 3d 1099, 1102 (D. Or. 2015).  
9 Defendants have failed to credibly refute the key opinions supporting the Conservancy's Motion.

10 **1. Dr. Lacy's opinions have not been credibly refuted.**

11 Dr. Robert Lacy "is among the world's most experienced, respected, and sought-after  
12 modelers for conducting [PVA] for the management and conservation of threatened species."  
13 Dkt. 91-5 ¶ 23; *see also* Dkt. 14-3 pp. 29–48. His Vortex PVA model "projects the fate of each  
14 individual population" by "simulat[ing] the effects of both deterministic forces and demographic,  
15 environmental and genetic stochastic (or random) events on wildlife populations." Dkt. 14-3 ¶  
16 12. This model has been used for "thousands of species" around the world and "is well-suited for  
17 the analyses of threats to the [SRKW] population." *Id.* ¶ 13. Both Canada and NMFS have relied  
18 on Dr. Lacy's model for assessing the SRKW. Dkt. 14-3 ¶ 13; AR 47278, 47282, 47502–03.

19 Dr. Lacy's modeling showed the impact on the viability of the SRKW that would result  
20 from closing the Southeast Alaska Chinook salmon commercial troll fishery. Dkt. 127-2 ¶ 8. Dr.  
21 Lacy explained that, using estimates in the 2019 SEAK BiOp, the fishery reduces SRKW prey  
22 by about 6 percent. *Id.* However, Dr. Lacy recognized that there is "considerable uncertainty  
23 around this number." *Id.* Dr. Lacy's model therefore showed the impact from closing the fishery  
24 under different assumptions; i.e., if the fishery reduced prey by 3%, 6%, 9%, and 12%. *Id.* ¶ 11.  
25 Each projection showed a meaningful improvement to SRKW viability; however, if the fishery  
26 reduces prey by 3%, its closure alone would not be sufficient to stop the species' decline. *See id.*

27 NMFS attempts to refute Dr. Lacy's opinions through misguided attacks from Ms. Barre  
28  
29



1 who has not shown qualifications to opine on such matters. For example, she criticizes Dr. Lacy  
 2 by explaining “not all Chinook salmon caught in the SEAK troll fisheries would migrate south  
 3 into SRKW habitat” and be consumed by SRKWs. Dkt. 133-2 ¶ 8. This underscores Ms. Barre’s  
 4 lack of qualifications on these matters. As Dr. Lacy explains, “no one claims that all the fish  
 5 escaping the fishery would be consumed by the whales, and it is illogical to assert that such an  
 6 assumption is necessary in order to estimate the impacts on [SRKWs] of a change in overall  
 7 [prey] abundance.” Dkt. 91-4 ¶ 15. Ms. Barre contends Dr. Lacy focuses only on SEAK fisheries  
 8 and not other impacts to SRKWs, which is simply false. *See* Dkt. 43-3 ¶ 16<sup>4</sup>; Dkt. 91-4 ¶ 16. Ms.  
 9 Barre claims the model fails to incorporate new studies suggesting a weaker correlation between  
 10 salmon abundance and SRKW demographics. Dkt. 43-3 ¶¶ 16–17; Dkt. 133-2 ¶ 7. Dr. Lacy is  
 11 aware of those new studies and explains that using them would show even greater increases in  
 12 Chinook salmon abundance are needed to protect SRKW. Dkt. 91-4 ¶¶ 17–18, 21–22. More  
 13 importantly, Dr. Lacy uses his professional judgment to determine what is most reliable for his  
 14 modeling, instead of simply applying what is most recent. Ms. Barre has not presented any  
 15 qualifications to opine on PVA modeling and has not credibly challenged Dr. Lacy’s opinions.

16  
 17 Other critiques of Dr. Lacy argue that closure of the Chinook salmon commercial troll  
 18 fishery would not actually result in a six percent increase in prey available to SRKWs. *See, e.g.*,  
 19 Dkt. 133-2 ¶ 9. Dr. Lacy explained that that the six percent number was based on the 2019  
 20 SEAK BiOp but that there is “considerable uncertainty” around it, and he therefore ran the model  
 21 using different assumptions. Dkt. 127-2 ¶¶ 8, 11. As discussed above, closing the fishery would  
 22 improve the SRKW’s viability under any modeled scenario. *Id.* ¶ 11.

23  
 24 Mr. Fujioka criticizes Dr. Lacy’s analysis by arguing that, if Southeast Alaska salmon  
 25 harvests are reduced, “under the terms of the Treaty, Canadian fishers could increase their catch”  
 26 by amounts greater than the reduction in Alaska. Dkt. 129 ¶¶ 22–27. Mr. Fujioka does not  
 27 identify Treaty provisions that would allow Canada to adjust the allowable catch for Individual  
 28

29 <sup>4</sup> Ms. Barre “has the same objections” to Dr. Lacy’s modeling as provided in her prior declaration. Dkt. 133-2 ¶ 4.

1 Stock-Based Management (“ISBM”) fisheries to include fish that had been allocated to Southeast  
 2 Alaska fisheries but were not harvested. *See id.* ¶ 22. Such adjustments are **not allowed**. Annual  
 3 harvest limits in the Canadian ISBM fisheries are determined annually in the spring using  
 4 “calendar year exploitation rates” (“CYER”) based on pre-season abundance estimates. *See* Dkt.  
 5 93-2 pp. 59–60, 62, 89–91. Those pre-season estimates are determined by the Chinook Technical  
 6 Committee by April 1 of each year. *See id.* p. 57. Once the limits are set, Canada cannot conduct  
 7 fisheries in a manner that increases interceptions. *See id.* p. 121. Mr. Fujioka’s speculation that  
 8 Canada would increase harvests, even if allowed under the Treaty, is unlikely. Canada is limiting  
 9 harvests beyond the Treaty to protect salmon and SRKW’s. *See* Dkt. 127-1 pp. 14–18, 22–30.  
 10 Nothing suggests Canada would not increase its harvests in response to reductions in Alaska.  
 11

12 Mr. Fujioka also opines that closure of the fishery would result in only a 0.58% increase  
 13 in SRKW prey. Dkt. 129 ¶ 34. Mr. Fujioka arrives at this figure, in part, by averaging selected  
 14 average prey reduction values for either coastal or inland waters, depending on where SRKW’s  
 15 are “more often” observed. *Id.* ¶¶ 32, 34. Mr. Fujioka provides no qualifications for opining on  
 16 such matters, does not explain how his averaging of select averages is a scientifically valid, and  
 17 does not provide information on the impact to SRKW’s that would result if closing the fisheries  
 18 increased prey by 0.58% as he asserts. Notably, his approach ignores prey reductions within  
 19 SRKW’s foraging range simply because SRKW’s are observed “more often” elsewhere.  
 20

21 Alaska submits a declaration from Ms. Evenson that critiques Dr. Lacy’s analysis by,  
 22 inter alia, pointing to a recent study that shows Southeast Alaska fisheries harvest less stocks that  
 23 are deemed “high priority” for SRKW’s that previously understood. Dkt. 135 ¶ 14. Again, the  
 24 latest study is not always the most reliable. Further, Ms. Evenson does not provide a revised  
 25 model showing how the new data would impact Dr. Lacy’s model. Moreover, the new data show  
 26 that nearly all Chinook salmon caught in Southeast Alaska are from stocks consumed by SRKW’s  
 27 and more than half are from stocks deemed a “high priority” for SRKW’s. *See* Dkt. 135-1 p. 6.  
 28

29 Defendants have not credibly challenged Dr. Lacy’s central opinion—reducing the  
 fisheries as proposed will provide meaningful improvements to the viability of the SRKW’s. It is

1 **Defendants’ burden** to demonstrate that the Court should refrain from imposing the  
 2 presumptive remedy of vacatur. *See Coal. to Protect Puget Sound Habitat v. U.S. Army Corps of*  
 3 *Eng’rs*, 466 F. Supp. 3d 1217, 1219–20, 1226 (W.D. Wash. 2020). Yet, Defendants have not  
 4 presented **any evidence** showing the impacts to the SRKW’s viability anticipated from the  
 5 proposed relief, and all parties seem to agree that benefits would accrue to SRKWs.

6 **2. The prey increase program will harm Chinook salmon without**  
 7 **benefitting SRKW and has not undergone ESA and NEPA review.**

8 Dr. Gordon Luikart is a wildlife geneticist at the University of Montana’s Flathead Lake  
 9 Biological Station with extensive expertise in animal domestication and the “effects of gene flow  
 10 and introgression on fitness and population persistence in fish and wildlife.” *See* Dkt. 91-5 ¶ 13;  
 11 *id.* at ¶¶ 3–12, pp. 31–42. He explains that salmon hatchery programs harm wild populations,  
 12 including by lowering the productivity of the wild populations; i.e., by reducing the number of  
 13 offspring produced. *E.g.*, Dkt. 91-5 ¶ 18.c. The reductions can be very significant; a pHOS  
 14 (percent of hatchery origin adult fish on spawning grounds) of 5% can reduce the productivity of  
 15 the wild population by 38%. *Id.* ¶ 38. Dr. Luikart explains that high pHOS levels for Chinook  
 16 salmon populations throughout Puget Sound, the Columbia River, and the Washington Coast are  
 17 likely contributing to low productivity of wild populations and that the prey increase program  
 18 will “further inhibit the prospects for the continued survival, much less recovery, of Chinook  
 19 salmon” throughout those areas. Dkt. 91-5 ¶¶ 63–64; *see also* Dkt. 127-3 ¶¶ 20–21. The program  
 20 therefore also threatens the viability of SRKWs, which depend on Chinook salmon. Defendants  
 21 have not provided any admissible or credible evidence to refute Dr. Luikart’s opinions.

22 **a. The prey increase program will not benefit SRKWs.**

23 NMFS continues to assert that the prey increase program will benefit SRKWs, but it has  
 24 not provided any credible evidence to support such a benefit. The Court found that the 2019  
 25 SEAK BiOp identified the goal of the prey increase program—release 20 million additional  
 26 smolts annually in a manner that increases SRKW prey availability by 4% to 5%—but failed to  
 27 provide a detailed plan to accomplish that objective. Dkt. 111 pp. 27–28. The record is devoid of  
 28  
 29

scientifically defensible evidence showing how the proposed hatchery increases benefit SRKWs.

NMFS likely applied generic “smolt-to-adult ratios” (“SAR”)—which represent the number of adult fish produced for each smolt released from a hatchery—to calculate the number of adult fish NMFS assumes will be generated from a release of 20 million hatchery smolts. There are many problems with NMFS’s failure to develop and analyze its prey increase program. Chief among them is there is absolutely no analyses of the **reductions in productivity** of the wild populations that will result from the increases in hatchery releases and therefore no evaluation of whether there is a net increase in SRKW prey. Similarly, there is nothing showing that the selected hatcheries produce adult fish available in times and locations beneficial to SRKWs, or that the hatchery releases will not result in increased harvests that offset any benefit.

NMFS’s new declarations from Ms. Purcell and Ms. Barre provide only unsupported conclusory assertions that the prey increase program benefits SRKWs. *E.g.*, Dkt. 133-2 ¶¶ 11, 14–17; Dkt. 133-3 ¶¶ 3, 10. These declarations do not provide any scientifically valid analysis on how the proposed hatchery increases will benefit SRKWs, nor do they demonstrate that Ms. Purcell or Ms. Barre would be qualified to provide such an analysis. The declarations do not address the deficiencies discussed above; *e.g.*, they do not show that NMFS evaluated reductions in productivity of wild populations that will accompany the increases in hatchery production.

There is no credible evidence demonstrating that the prey increase program will provide a net benefit to SRKWs. There is substantial evidence showing the program will cause significant and long-lasting harm to wild Chinook salmon populations—the SRKW’s primary prey.

**b. The prey increase program harms threatened Chinook salmon.**

NMFS has not refuted Dr. Luikart’s opinions on the harm caused to threatened Chinook salmon by the prey increase program. Instead, NMFS claims that it has conducted site-specific ESA consultations for individual disbursements of funds under the prey increase program to confirm that each hatchery increase is not likely to jeopardize threatened salmon. Dkt. 133 at 13. However, NMFS has not conducted site-specific ESA consultations for each disbursement and, even if it did, such consultations would not redress the concerns raised by Dr. Luikart.

1 The Ninth Circuit has repeatedly rejected similar piecemeal ESA consultations. *E.g.*,  
 2 *Conner v. Burford*, 848 F.2d 1441, 1453–58 (9th Cir. 1988); *Wild Fish Conservancy v. Salazar*,  
 3 628 F.3d 513, 521–25 (9th Cir. 2010). The problem with this approach is that it evaluates  
 4 whether each individual increase in hatchery production will itself jeopardize listed species,  
 5 without ever evaluating whether the entire proposal to increase production by 20 million  
 6 additional smolts annually risks such jeopardy. The ESA does not allow this approach. *See Wild*  
 7 *Fish Conservancy*, 628 F.3d at 523 (explaining this approach would allow a species to “be  
 8 gradually destroyed, so long as each step on the path to destruction is sufficiently modest”  
 9 (citation omitted)). NMFS’s proposed “[s]ite-specific review cannot cure a failure to consult at  
 10 the programmatic level, and incremental-step consultation is inadequate to comply with the  
 11 ESA.” *Env’t Def. Ctr. v. Bureau of Ocean Energy Mgmt.*, 36 F.4th 850, 891 (9th Cir. 2022).

13 Further, NMFS has not conducted “site-specific” ESA and NEPA review for each  
 14 disbursement of funds provided under the prey increase program as it suggests. *See* Dkt. 133 at  
 15 13. Instead, NMFS has determined that many disbursements do not require any ESA or NEPA  
 16 review, while NMFS believes most others are covered by pre-existing ESA and NEPA reviews.  
 17 *See* Dkt. 93-4 pp. 189–90; Dkt. 133-3 ¶ 5, pp. 26–1903; Dkt. 93 p. 30 (“Plaintiff also incorrectly  
 18 assumes that NEPA will be triggered for each site-specific project.”). The pre-existing reviews  
 19 addressed hatchery programs operating before the prey increase program and therefore do not  
 20 even mention, much less evaluate, NMFS’s proposal to increase hatchery production in a  
 21 supposed effort to benefit SRKWs. *See, e.g.*, Dkt. 133-3 ¶5, p. 29 (relying on a 2007 BiOp).

### 23 **3. Defendants have not credibly challenged Dr. Radtke’s opinion.**

24 Dr. Radtke provided opinions on the economic impact of vacating the ITS as proposed.  
 25 Dr. Radtke has a Ph.D. in resource economics, has taught economics at various universities, and  
 26 is now an independent resource economist working for industry, non-government organizations,  
 27 and federal agencies focusing primarily on fisheries on the West Coast and in Alaska. Dkt. 127-4  
 28 ¶¶ 2–3. He explained, based on modeling, that closing the summer and winter Chinook salmon  
 29 troll fisheries would have an economic impact of around \$9.5 million in generated annual

1 income, or around 2.6 percent of the Southeast Alaska seafood industry. *Id.* ¶ 31.

2 Defendants do not credibly refute Dr. Radtke’s analysis. Instead, NMFS offers Mr.  
3 Keaton, an assistant regional administrator with no apparent economic experience, and ATA  
4 offers Mr. Olson, a troller and attorney. Dkt. 133-1 ¶¶ 1–2; Dkt. 131 ¶¶ 2–10. Mr. Olson’s  
5 primary attack is that Dr. Radtke’s “economic outputs” for the fisheries are less than outputs  
6 found in other reports. Dkt. 131 ¶¶ 16, 19; *see* Dkt. 133-1 ¶¶ 36–41. Dr. Radtke did not estimate  
7 “output,” he provided estimates of “generated income.” Second Radtke Decl. ¶ 8. Mr. Olson’s  
8 conflation of these highlights that he is not an economist qualified to opine on Dr. Radtke’s  
9 modeling. *Id.* ¶¶ 8, 10. Output “does not provide meaningful insight” and “is inappropriate” to  
10 use here, whereas income accurately captures “direct, indirect, and induced effects” of a  
11 change. *Id.* ¶¶ 6–8. Economists understand that these are very different concepts, that “outputs”  
12 are not appropriate for the modeling performed by Dr. Radtke, and that “output” “tends to  
13 convey an inflated notion of economic activity” and “is subject to double counting.” *Id.* ¶ 7.

14  
15 **C. Defendants Fail to Overcome the Presumption of Vacatur.**

16 The “presumptive remedy” for NMFS’s violations is “full vacatur” of the 2019 SEAK  
17 BiOp. *See Coal. to Protect Puget Sound*, 843 F. App’x at 80. Defendants, as those opposing  
18 vacatur, have the burden of overcoming that presumption. *See All. for the Wild Rockies v. U.S.*  
19 *Forest Serv.*, 907 F.3d 1105, 1121–22 (9th Cir. 2018); *Coal. to Protect Puget Sound*, 466 F.  
20 Supp. 3d at 1219, 1226. In considering such a request, the Court weighs the seriousness of the  
21 agency’s errors against the disruptive consequences that might result from vacatur. *Cal. Cmty.*  
22 *Against Toxics v. U.S. Env’t Prot. Agency*, 688 F.3d 989, 992 (9th Cir. 2012).

23  
24 However, there is a strong presumption that unlawful agency decisions should be vacated  
25 and remand without vacatur is rarely granted. *See Pollinator Stewardship Council v. U.S. Env’t*  
26 *Prot. Agency*, 806 F.3d 520, 532 (9th Cir. 2015) (“only in limited circumstances”); *Humane*  
27 *Soc’y of the U.S. v. Locke*, 626 F.3d 1040, 1053 n.7 (9th Cir. 2010) (“[i]n rare circumstances”).  
28 “The cases in which remand without vacatur was deemed appropriate ‘highlight the **significant**  
29 **disparity** between the agencies’ relatively minor errors, on the one hand, and the damage that



vacatur could cause the very purpose of the underlying statutes, on the other.” *Puget Soundkeeper All. v. Wheeler*, No. C15-1342-JCC, 2018 U.S. Dist. LEXIS 199358, at \*16–17 (W.D. Wash. Nov. 26, 2018) (citation omitted, emphasis added); *see also Klamath-Siskiyou Wildlands Ctr. v. Nat’l Oceanic & Atmospheric Admin.*, 109 F. Supp. 3d 1238, 1242 (N.D. Cal. 2015) (“[C]ourts may decline to vacate . . . when vacatur would cause serious and irreparable harms that **significantly outweigh** the . . . agency’s error.” (citation omitted, emphasis added)).

Defendants have not shown that this a rare case warranting remand without vacatur.

**1. Defendants have not shown that the violations are not serious.**

NMFS’s violations are exceedingly serious under *Allied-Signal*, particularly because they undermine central congressional objectives of the underlying statutes. *See, e.g., W. Watersheds Project v. Zinke*, 441 F. Supp. 3d 1042, 1083 (D. Idaho 2020). NMFS does not meet its burden to demonstrate otherwise, providing little argument for how the violations are not serious.

The “heart of the ESA is section 7(a)(2),” which requires federal agencies to **insure** that their actions do not jeopardize species. *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 495 (9th Cir. 2011). The consultation requirements of section 7(a)(2) of the ESA are intended to prevent violations of that substantive mandate. *Wash. Toxics Coal. v. Env’t Prot. Agency*, 413 F.3d 1024, 1034 (9th Cir. 2005). These provisions mandate a federal policy of “institutionalized caution” that prioritizes protection of imperiled species over other interests. *Hill*, 437 U.S. at 174, 194. NMFS’s contention that its ESA violations are so minor that the unlawful activities should be allowed to continue unabated seeks to eviscerate these requirements.

The Court found that NMFS could not approve the fisheries under ESA section 7 without the mitigation—a fact NMFS has not contested—and that NMFS violated the ESA by approving the fisheries in reliance on indefinite and uncertain mitigation and by failing to determine whether the mitigation itself will jeopardize salmon. Dkt. 111 pp. 27–33. These are not minor technical violations. Allowing the fisheries to go forward absent guaranteed mitigation or other measures that ensure SKRWs are not jeopardized is inconsistent with Congress’ mandate for institutionalized caution. Similarly, NMFS’s failure to evaluate the prey increase program under

1 section 7 of the ESA is inconsistent with the central requirement that agencies ensure their  
 2 actions will not jeopardize species. The errors are serious and weigh heavily in favor of vacatur.<sup>5</sup>

3 NMFS notes that several cases cited in the Motion did not deal with BiOps, but related to  
 4 other ESA decisions, such a permit issued under section 10 of the ESA. Dkt. 133 p. 20. NMFS  
 5 does not explain why this is meaningful; notably, an ESA section 10 take permit is analogous to  
 6 an ITS issued under section 7 of the ESA, except that ESA section 10 permits are issued for non-  
 7 federal actions, while an ITS is issued to federal agencies. *See* 16 U.S.C. §§ 1536(a)(2),  
 8 1539(a)(1)(B); *see also Ramsey v. Kantor*, 96 F.3d 434, 439 (9th Cir. 1996). NMFS attempts to  
 9 distinguish a BiOp case by pointing out that the agency there failed to fully explain its finding  
 10 that beluga whales were not harmed by the action. Dkt. 133 p. 20 (discussing *Cook Inletkeeper v.*  
 11 *Raimondo*, 541 F. Supp. 3d 987, 990–92 (D. Alaska 2021)). The fact that it is beyond dispute  
 12 that the unmitigated fisheries here take SRKWs, while it was unclear whether the action in *Cook*  
 13 *Inletkeeper* harmed the species at all, makes the violations here more serious. Courts find, with  
 14 near uniformity, that BiOp deficiencies similar to those here are serious. *See, e.g., Aquall. v. U.S.*  
 15 *Bureau of Reclamation*, 312 F. Supp. 3d 878, 882–84 (E.D. Cal. 2018); *Cook Inletkeeper*, 541 F.  
 16 Supp. 3d at 990–92; *Klamath-Siskiyou*, 109 F. Supp. 3d at 1243–45; *Sovereign Inūpiat for a*  
 17 *Living Arctic v. Bureau of Land Mgmt.*, 555 F. Supp. 3d 739, 804–05 (D. Alaska 2021).

19 NMFS focuses on two opinions in arguing that the ESA violations are not serious. Dkt.  
 20 133 at 19–21. In one, the Ninth Circuit found that an agency violated the Federal Insecticide,  
 21 Fungicide, and Rodenticide Act (“FIFRA”) by failing to consider harm to a butterfly from killing  
 22 milkweed on agricultural fields by using a pesticide on the crops; the agency did properly  
 23 address impacts of killing milkweed on non-target fields. *See Nat’l Family Farm Coal. v. U.S.*  
 24 *Env’t Prot. Agency*, 966 F.3d 893, 916–17 (9th Cir. 2020). The court rejected all other claims,  
 25 including several under the ESA. *Id.* at 912–29. The error was not serious, “especially in light of  
 26

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27 <sup>5</sup> NMFS falsely claims that the Court rejected the Conservancy’s “primary example of a serious error.” *See* Dkt. 133  
 28 at 19. According to NMFS, the Conservancy argued that NMFS violated the ESA by not imposing reasonable and  
 29 prudent alternatives and the Court rejected that argument. *Id.* The Conservancy did argue for such a violation nor did  
 the Court make a finding that issue. NMFS’s misrepresentation of the Court’s findings is confounding.



1 [the agency’s] full compliance with the ESA and substantial compliance with FIFRA.” *Id.* at  
 2 929. This does not support NMFS’s contention that its ESA violations are not serious because  
 3 the court in *National Family Farm* explicitly found that the agency fully complied with the ESA.

4 In the other decision cited by NMFS, the court similarly found that, “with limited  
 5 exception, the record reflects that Federal Defendants met their statutory obligations” for a  
 6 revised forest management plan. *Wild Earth Guardians v. Steele*, 545 F. Supp. 3d 855, 863 (D.  
 7 Mont. 2021). The agencies did not violate NEPA or a Travel Management Rule and “violated the  
 8 ESA to [a] limited extent . . . .” *Id.* at 884. The court indicated that the ESA violations could be  
 9 considered serious, but determined that the seriousness of the violations factor did not favor  
 10 vacatur. *Id.* 884–85. That decision is inapposite because the court rejected most challenges,  
 11 finding that the agencies complied with NEPA and substantially complied with the ESA.  
 12 Moreover, there was no suggestion that the plan in *Steele* could jeopardize species; the parties  
 13 agreed that that plan included many environmentally beneficial aspects. *Id.* at 884. Here, in  
 14 contrast, the fisheries could not be approved under the ESA absent mitigation and the mitigation  
 15 is not reasonably certain to occur and itself harms salmon and violates the ESA and NEPA.

17 NMFS argues the NEPA violations are not serious because it is “a procedural statute.”  
 18 Dkt. 133 p. 20. NMFS cites two opinions in support of its misguided argument, neither of which  
 19 involves NEPA. Dkt. 133 pp. 20–21. While NEPA is a procedural statute, Congress intended the  
 20 procedures to “serve[] [the statute’s] ‘action-forcing’ purpose” by ensuring that agencies fully  
 21 consider detailed environmental information before making decisions and by ensuring that  
 22 relevant information is available to the public and others that play a role in the decision making  
 23 process. *See Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348–349 (1989).  
 24 Allowing a decision to remain effective where there was a “significant deficiency” in the NEPA  
 25 process would “vitiate” the statute. *Oglala Sioux Tribe v. U.S. Nuclear Regul. Comm’n*, 896 F.3d  
 26 520, 536 (D.C. Cir. 2018). Courts consider NEPA violations, other than “mere technical or  
 27 procedural formalities,” serious. *See Klamath-Siskiyou*, 109 F. Supp. 3d at 1244–45.

28 NMFS failed to provide any NEPA procedures for the ITS approving the 10-year salmon  
 29

1 harvests of the 2019 Pacific Salmon Treaty or for its adoption of the prey increase program. *See*  
 2 Dkt. 111 at 34–38. NMFS thereby did not: consider alternatives; evaluate environmental and  
 3 cumulative impacts; or disclose the actions and alternatives to the public and consider public  
 4 input. These are plainly serious NEPA violations. *See, e.g., Zinke*, 441 F. Supp. 3d at 1086–87  
 5 (restricting public involvement was a serious NEPA violation); *League of Wilderness Defs. v.*  
 6 *U.S. Forest Serv.*, No. 3:10-cv-01397-SI, 2012 U.S. Dist. LEXIS 190899, at \*10 (D. Or. Dec. 10,  
 7 2012) (failing to analyze cumulative impacts will “rarely—if ever—”not be serious); *Wild Fish*  
 8 *Conservancy v. Nat’l Park Serv.*, No. C12-5109 BHS, 2014 U.S. Dist. LEXIS 105689 at \*7–8  
 9 (W.D. Wash. July 31, 2014) (failure to consider an alternative was serious NEPA violation).

10 NMFS argues that vacatur is unwarranted because NMFS believes that it will be able  
 11 “offer better reasoning” on remand by building off “site-specific” NEPA documents. Dkt. 133 at  
 12 21. This suggests that NMFS does not intend to remedy its violations by meaningfully evaluating  
 13 alternatives, but instead seeks to provide post hoc rationalizations for prior decisions unlawfully  
 14 made. *See Metcalf*, 214 F.3d at 1142, 1146; *Wild Fish Conservancy*, 2014 U.S. Dist. LEXIS  
 15 105689 at \*7–8. Vacatur is especially needed to deter such an approach and slow the  
 16 bureaucratic momentum behind NMFS’s prior unlawful actions that could “foreclose or diminish  
 17 the prospect for an open-minded examination of alternatives” in the future NEPA reviews. *See*  
 18 *W. Watersheds Project v. Zinke*, 336 F. Supp. 3d 1204, 1239–41 (D. Idaho 2018).

19 Further, NMFS cannot demonstrate that it is likely, as opposed to merely possible, that it  
 20 will reach “the exact same determinations on remand.” *Cook Inletkeeper*, 541 F. Supp. 3d at  
 21 991–92; *see Pollinator Stewardship*, 806 F.3d at 532–33 (vacating decision where “a different  
 22 result may be reached”). Notably, NMFS must meaningfully consider alternatives on remand—  
 23 including reduced harvests in lieu of increased hatchery production—so cannot lawfully  
 24 represent it will reach the same decision. *See Wild Fish Conservancy*, 2014 U.S. Dist. LEXIS  
 25 105689 at \*7–8. Further, there is no credible evidence demonstrating that the prey increase  
 26 program would mitigate fishery impacts to SRKWs or that the prey increase program would not  
 27 jeopardize salmonids. NMFS’s violations are serious because NMFS cannot show that it will  
 28  
 29

1 adopt those exact same actions on remand. *See Cook Inletkeeper*, 541 F. Supp. 3d at 991–92.

2 NMFS argues that the “seriousness of the errors” on the prey increase program is  
 3 “substantially undermined” because “every program funded has been subject to ESA and NEPA  
 4 compliance.” Dkt. 133 at 20. This suggests NMFS does not take its legal obligations seriously.  
 5 NMFS has not conducted “site-specific” reviews for each disbursement, but has instead found  
 6 that most disbursements are not subject to the ESA and NEPA or are somehow covered by  
 7 reviews prepared long before the program was contemplated. *See supra* sec. II.B.2.b.

8 Defendants have failed to show that the ESA and NEPA violations are not serious.  
 9 Rather, these pervasive violations contravene important Congressional objectives of the  
 10 underlying statutes and are therefore serious. *See, e.g., Zinke*, 441 F. Supp. 3d at 1083.

11 **2. The disruptive economic consequences do not significantly outweigh**  
 12 **the seriousness of the violations such that vacatur is unwarranted.**

13 To overcome the presumption of vacatur, Defendants must demonstrate that this is a rare  
 14 case where there is a “significant disparity between the agencies’ relatively minor errors, on the  
 15 one hand, and the damage that vacatur could cause the very purpose of the underlying statutes,  
 16 on the other.” *Puget Soundkeeper All.*, 2018 U.S. Dist. LEXIS 199358, at \*16–17 (citing  
 17 *Klamath-Siskiyou*, 109 F. Supp. 3d at 1242). Defendants have not met this burden.

18 **a. The economic consequences of vacating the ITS do not**  
 19 **overcome the presumption of vacatur.**

20 The Conservancy proposes vacatur of the ITS to the extent it provides take authorization  
 21 for Chinook salmon harvests in the winter and summer commercial troll fishery seasons. The  
 22 presumptive remedy is vacatur of the entire ITS. *See Coal. to Protect Puget Sound*, 843 F. App’x  
 23 at 80. That would remove take authorization for extensive SEAK salmon fisheries beyond those  
 24 affected by the Conservancy’s proposed relief, including commercial net/seine, sport, and  
 25 subsistence. Dkt. 127 at 21–22; AR 47318–19, 47471–79, 47523. Dr. Radtke explained that the  
 26 entire salmon troll fishery accounted for around 38 percent of all SEAK salmon harvest value in  
 27 2020. Dkt. 127-4 ¶¶ 15, 21.a. Further, of the salmon troll fishery, only around 54 percent of the  
 28 harvest value was for Chinook salmon. *Id.* ¶ 21.b. The proposed relief imposes a small fraction  
 29

1 of the economic consequences that would result from the presumptive remedy of full vacatur.

2 Dr. Radtke explained that the economic impact of the proposed vacatur is around \$9.5  
3 million in generated annual income, which represents around 2.6 percent of the Southeast Alaska  
4 seafood industry. *Id.* ¶ 31. Defendants have not credibly refuted that analysis. *See supra* sec.  
5 II.B.3. Regardless, the economic impacts at issue cannot overcome the presumption that agency  
6 decisions suffering from serious legal errors should be vacated. *See, e.g., N. Plains Res. Council*  
7 *v. U.S. Army Corps of Eng'rs*, 460 F. Supp. 3d 1030, 1038–41 (D. Mont. 2020); *see also In re*  
8 *Clean Water Act Rulemaking*, 568 F. Supp. 3d 1013, 1028 (N.D. Cal. 2021).

9 Vacatur of the ITS is especially warranted given the harm to SRKWs and Chinook  
10 salmon caused by the fisheries, despite economic impacts. Congress intended species to be  
11 prioritized over other interests through a policy of “institutionalized caution” and courts should  
12 enforce this prioritization. *See Hill*, 437 U.S. at 174, 194. While Defendants claim to disagree  
13 with Dr. Lacy on the extent of harm to SRKWs, nobody suggests that the fisheries do not cause  
14 any harm to SRKWs and threatened Chinook salmon. Accordingly, the court should “tip the  
15 scales in favor of the endangered species” and vacate the ITS. *See Klamath-Siskiyou*, 109 F.  
16 Supp. 3d at 1242; *N. Plains*, 460 F. Supp. 3d at 1037–38; *Aquall.*, 312 F. Supp. 3d at 883.

17 Defendants have not cited any case where a court declined to vacate an unlawful agency  
18 action based solely on economic consequences. *See N. Plains Res. Council*, 460 F. Supp. 3d at  
19 1038–39 (explaining that *California Communities* involved a “combination of economically and  
20 environmentally harmful consequence”). Courts regularly find that considerable economic  
21 consequences are inadequate to overcome the presumption of vacatur. *See, e.g., Sovereign*  
22 *Iñupiat*, 555 F. Supp. 3d at 804–05; *Coal. to Protect Puget Sound*, 466 F. Supp. 3d at 1225–26;  
23 *In re Clean Water Act Rulemaking*, 568 F. Supp. 3d at 1028; *Cook Inletkeeper*, 541 F. Supp. 3d  
24 987 at 993; *Se. Alaska Conservation Council v. U.S. Forest Serv.*, 468 F. Supp. 3d 1148, 1154–  
25 55 (D. Alaska 2020); *All. for the Wild Rockies v. Marten*, No. CV 17-21-M-DLC, 2018 U.S.  
26 Dist. LEXIS 98555, at \*10–11 (D. Mont. June 12, 2018). Moreover, the Conservancy is unaware  
27 of any case where disruptive economic consequences avoided vacatur of an unlawful action that  
28  
29

1 harms listed species. *See, e.g., N. Plains Res. Council*, 460 F. Supp. 3d at 1040. Defendants have  
 2 not met their burden of showing that the ITS should not be vacated as requested in the Motion.

3 **b. Defendants have not demonstrated any meaningful disruptive**  
 4 **consequences from vacatur of the prey increase program.**

5 Those portions of the 2019 SEAK BiOp pertaining to the prey increase program should  
 6 be vacated. Defendants have not shown any meaning disruptive consequences for such relief.

7 Defendants argue that vacatur on the prey increase program could pose risks to SRKWs.  
 8 Dkt. 133 at 23. However, NMFS has not demonstrated that the program would benefit SRKWs,  
 9 but has instead provided only conclusory assertions that benefits will occur. *See supra sec.*

10 II.B.2.a. Dr. Luikart has shown that this program would inflict serious and lasting harm on  
 11 threatened Chinook salmon populations, impeding recovery. *See supra sec. II.B.2.b.* Further,  
 12 vacatur of the ITS for the fisheries will provide immediate benefits for SRKWs as demonstrated  
 13 by Dr. Lacy's analyses. The parties may disagree on the extent of benefits, but nobody credibly  
 14 claims that such benefits will not occur. Even Alaska's recent data indicate that nearly all  
 15 Chinook salmon caught in the troll fishery are from stocks consumed by SRKW. Dkt. 135-1 at 6.

16 NMFS also hypothesis that vacatur of the prey increase program could lead to hatchery  
 17 releases of unmarked fish, which NMFS speculates could result in pHOS increases. Dkt. 133 at  
 18 24. This wild speculation is not supported by a hatchery operator or others that may know how  
 19 hatcheries would respond to the proposed relief. *See, e.g., id.*; Dkt. 133-3 ¶ 1. Most salmon  
 20 hatcheries are required to mark their fish prior to release. *See, e.g.,* Dkt. 133-3 pp. 243, 306. The  
 21 suggestion that hatchery operators would release unmarked fish into salmon bearing streams,  
 22 exposing them to liability under the ESA, is absurd.

23 Defendants have not demonstrated any disruptive consequences that could meet their  
 24 burden of overcoming the presumption of vacatur of the prey increase program. There is no  
 25 credible evidence showing that the program would benefit SRKWs, while it is beyond dispute  
 26 that it would harm threatened Chinook salmon. Even if the "equities are unclear," which they are  
 27 not, vacatur would be warranted. *See Coal. to Protect Puget Sound*, 466 F. Supp. 3d at 1226.  
 28  
 29

1                   **3.     The 2019 SEAK BiOp should be vacated as requested.**

2           Defendants have not met their burden to overcome the presumption of vacatur. *See Coal.*  
 3 *Protect Puget Sound*, 466 F. Supp. 3d at 1219, 1226. They have not shown that this is a rare case  
 4 where there is a “significant disparity” between “relatively minor [legal] errors” by the agency  
 5 and substantial and irreparable damage that would result from vacatur. *See Puget Soundkeeper*  
 6 *All.*, 2018 U.S. Dist. LEXIS 199358, at \*16–17; *Klamath-Siskiyou*, 109 F. Supp. 3d at 1242.

7           Notably, Defendants have not identified a single case in which a court declined to vacate  
 8 an agency action adopted without **any** required NEPA procedures; i.e., without any of the public  
 9 processes, reviews, or considerations of alternatives. Nor have Defendants identified precedent  
 10 supporting their request to allow the fisheries to continue unabated, despite that, “absent the  
 11 mitigation, NMFS would be unable” to approve them under ESA standards and the Court found  
 12 the mitigation is not reasonably certain to occur and itself violates NEPA and the ESA. *See* Dkt.  
 13 111 at 28–33, 37–38. These are plainly serious ESA and NEPA violations that warrant vacatur.

14           While Defendants have the burden in overcoming the presumption that the entire 2019  
 15 SEAK BiOp be vacated, they have declined to provide “meaningful assistance . . . in helping to  
 16 shape a compromise remedy,” insisting instead “that they should be allowed . . . [to continue  
 17 their activities] under a defective, unlawful [BiOp] regardless of the environmental impacts for  
 18 an unspecified period of time.” *See Coal. to Protect Puget Sound*, 466 F. Supp. 3d at 1226. The  
 19 Court should adopt the compromise remedy proposed by the Conservancy. *See id.*, *aff’d*, 843 F.  
 20 App’x at 80 (finding the Court did not abuse its discretion in crafting a remedy where “[f]ull  
 21 vacatur is the ordinary remedy” and the intervenor did not propose a “nuanced adjustment,” but  
 22 instead insisted that “nearly 900 aquaculturists [be allowed] to continue their operations in full”).

23                   **D.     The Court Should Enjoin the Prey Increase Program.**

24           The prey increase program should be enjoined. *See* Dkt. 127 at 31–33. NMFS’s request  
 25 for this program to continue unabated in violation of the ESA and NEPA should be rejected.

26           Dr. Lacy explained that this program would inflict lasting harm on ESA-listed salmonids,  
 27 impeding their ability to recover; i.e., cause irreparable injury. *See* Dkt. 127 at 31; Dkt. 127-3 ¶¶



20–21; Dkt. 91-5 ¶¶ 18, 63–64; *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 886 F.3d 803, 817–19 (9th Cir. 2018); *Cottonwood Env’t Law Ctr. v. U.S. Forest Serv.*, 789 F.3d 1075, 1091 (9th Cir. 2015) (explaining establishing irreparable injury should not be an onerous task).

NMFS argues that injury will not result because the program has been “carefully evaluated” under the ESA and NEPA. *See* Dkt. 133 at 29. That is false; NMFS has decided that most disbursements for the program are not subject to the ESA and NEPA or are covered by materials prepared before the program was contemplated and that do not mention it. *See supra* sect. II.B.2.b. This highlights that an injunction is essential because NMFS will otherwise continue to flout its ESA and NEPA obligations. Moreover, even if “site-specific” review was occurring, “[s]ite-specific review cannot cure a failure to consult at the programmatic level,” “otherwise, a ‘listed species could be gradually destroyed, so long as each step on the path to destruction is sufficiently modest.’” *Env’t Def. Ctr.*, 36 F.4th at 891 (citation omitted).

NMFS’s adoption of the prey increase program without NEPA procedures also constitutes irreparable injury. *See* Dkt. 127 at 31–32. NMFS argues that these allegations of injury are conclusory. Dkt. 133 at 29. This ignores that, “[i]n the NEPA context, irreparable injury flows from the failure to evaluate the environmental impact of a major federal action.” *High Sierra Hikers Ass’n v. Blackwell*, 390 F.3d 630, 642 (9th Cir. 2004); *see also Ctr. for Food Safety v. Vilsack*, 753 F. Supp. 2d 1051, 1057 (N.D. Cal. 2010) (“Failing to conduct [NEPA] . . . constitutes irreparable harm.”). The Conservancy’s injuries are not based solely on a lack of procedures, but also on harm to species from the unlawful program; such harm “can seldom be adequately remedied by money damages and is often permanent or at least of long duration, i.e., irreparable.” *See Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 545 (1987).

NMFS argues that the balance of harms and equities do not favor an injunction because the prey increase program is intended to benefit SRKWs. Dkt. 133 at 29–30. NMFS has not pointed to any credible analysis showing that the program will actually provide a net benefit to SRKWs—such analysis was absent when NMFS adopted the program with the 2019 SEAK BiOp, and NMFS has been unable to provide such an analysis since. *See supra* sec. II.B.2.a. On

the other hand, there is clear analysis showing that the program will increase pHOS for wild Chinook population and further inhibit the species' ability to recover. *See supra* sec. II.B.2.b.

Further, there is a strong public policy in favor of enjoining projects until the careful considers required by NEPA occur. *All. for the Wild Rockies v. Cottrell*, 632 F.3d 1127, 1138 (9th Cir. 2011). Such relief is essential to help ensure that NMFS meaningfully considers the prey increase program and alternatives thereto as opposed to merely providing post hoc rationalizations for its prior unlawful decision to adopt this program. *See Env't Def. Ctr.*, 36 F.4th at 882, 892 (remanding with instructions to enjoin permitting until NEPA compliance where agencies had violated NEPA by providing "post-hoc rationalizations for their decision").

**E. Preliminary Relief Should Be Imposed Pending a Final Order.**

NMFS argues the Conservancy does not meet the standards for preliminary relief because (1) an immediate increase could come from the prey increase program now and (2) there is no indication that the prey increase program is harming ESA-listed salmon. Dkt. 133 at 30–31. NMFS appears to accept Dr. Giles' opinion that an immediate prey increase is needed to **avoid functional extinction**. Dkt. 127-1 ¶ 18. An immediate reduction of fisheries approved in violation of the ESA and NEPA would provide some of the increase needed. On the other hand, implementation of the prey increase program "will likely further increase pHOS levels and thereby further inhibit the prospects for the continued survival" of ESA-listed salmon, likely causing long-term harm to ESA-listed salmon and consequently SRKWs. Dkt. 127-3 ¶ 20. Further, enjoining the prey increase program now is essential to stop the "bureaucratic momentum" in light of NMFS's transparent intentions to continue pursuing the prey increase programs without a meaningful NEPA analysis. *W. Watersheds*, 336 F. Supp. 3d at 1239–41.<sup>6</sup>

**F. The Conservancy Satisfied Standing Requirements.**

ATA generally claims the remedies of halting "the SEAK troll fisheries" and enjoining the prey increase program would not redress the Conservancy's injuries. Dkt. 128 at 9. The Court

<sup>6</sup> The Conservancy's use of litigation as an advocacy tool is irrelevant to the bond; rather, the focus is on the resources of a non-profit acting in the public interest. *See* Dkt. 128 at 17–18; Dkt. 127 at 33; Dkt. 127-5 ¶ 6.



1 already found these actions impact SRKW and Chinook and rejected ATA's argument "that the  
 2 record fails to evince that there is a substantially likelihood the WFC's members may be more  
 3 likely to see SRKW **if the Southeast Alaska troll fishery is closed.**" Dkt. 111 at 21–23  
 4 (emphasis added). Also, enjoining the program is "substantially likely to" and "could" remedy  
 5 the interests for many of the reasons as halting the fisheries. Dkt. 96 at 39–44; Dkt. 111 at 23.

6 ATA argues closing the SEAK troll fishery will have no discernable effect on SRKWs.  
 7 Dkt. 128 at 9–10. The Court already found to the contrary: "the [SEAK] fisheries and the prey  
 8 increase program authorized by the 2019 SEAK BiOp have considerable impacts on SRKW  
 9 population recovery and the Chinook salmon ESUs." Dkt. 111 at 23. Further, suggesting there is  
 10 no impact because troll catch has been reduced recently with "no correlated increase" in SRKW  
 11 populations is erroneous inductive reasoning. The Court acknowledged third-party impacts; it is  
 12 possible the decline would have been worse if harvests had not decreased. *See id.* at 20.

13 ATA implies that limits on sport fisheries are set after the troll season, such that they  
 14 could automatically harvest all remaining Chinook. *See* Dkt. 128 at 10. That is wrong—limits are  
 15 set at the beginning of the season along with other allocations and nothing allows the sport  
 16 harvest to increase if commercial trollers do not harvest their allocations. *See* AR 14910, 47318.

17 ATA repeats its rejected argument that other factors impact Chinook and SRKW  
 18 populations, such as other harvests and predation. Dkt. 128 at 10. The Court acknowledged  
 19 these, but found that a favorable order will redress the "injuries **to some degree.**" *See* Dkt. 111 at  
 20 20, 22, 23 (emphasis added) (citing *Barnum Timber Co. v. U.S. Env't Prot. Agency*, 633 F.3d  
 21 894, 901 (9th Cir. 2011) and *Cal. Sea Urchin Comm'n v. Bean*, 883 F.3d 1173, 1181–82 (9th  
 22 Cir. 2018) ("[A] plaintiff need not show that the requested relief will inevitably alleviate the  
 23 harm complained of.")). Removing some roadblocks is sufficient, even if others may remain.  
 24 *Cal. Sea Urchin Comm'n*, 883 F.3d at 1181–82; *Barnum Timber Co.*, 633 F.3d at 901.

25 The Court should reject ATA's rehash of standing arguments the Court already rejected.

## 26 V. CONCLUSION.

27 The Conservancy respectfully requests the Court grant the relief requested in the Motion.

Respectfully submitted this 14th day of October 2022.

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# Appendix

THE HONORABLE MICHELLE L. PETERSON

UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WASHINGTON  
AT SEATTLE

WILD FISH CONSERVANCY,

Plaintiff,

v.

SCOTT RUMSEY, *et al.*,

Defendants,

and

ALASKA TROLLERS ASSOCIATION,

Defendant-Intervenor

and

STATE OF ALASKA,

Defendant-Intervenor.

Case No. 2:20-cv-417-RAJ-MLP

THIRD DECLARATION OF  
Lynne Barre,  
National Marine Fisheries Service,  
West Coast Region

1 I, Lynne Barre, declare and state as follows:

2  
3 **Introduction**

- 4  
5 1. I am currently a Branch Chief in the Protected Resources Division of the National  
6 Marine Fisheries Service (NMFS), West Coast Region (WCR) and my duties  
7 have included leading the recovery program for Southern Resident killer whales  
8 (SRKW) since 2002. My qualifications and expertise regarding SRKW and  
9 Endangered Species Act (ESA) consultations were documented in my previous  
10 declarations (First Declaration (2020) and Second Declaration (2021)).  
11  
12 2. In preparation for this declaration I reviewed plaintiff's Motion for a Final Order  
13 on Relief filed September 7, 2022 and declarations by Dr. Lacy and Dr. Giles. I  
14 am also familiar with the scientific literature that has recently become available  
15 regarding SRKW as cited by Dr. Lacy and Dr. Giles.  
16  
17

18 **The Effect of Plaintiff's Remedies on Southern Resident Killer Whales.**

- 19  
20 3. I was asked to provide my opinion on the effect of vacating portions of the 2019  
21 Opinion on Southeast Alaska (SEAK) salmon fisheries (2019 Opinion) and  
22 enjoining NMFS's implementation of the prey increase program for SRKW.  
23  
24 4. My previous declarations have addressed these topics in detail and summaries of  
25 key points are included here. While the recent Lacy Declaration cites an update to  
26 data used for modeling relationships of Chinook abundance and population  
27 trajectory for SRKW, I have the same objections to the model detailed in my First  
28 Declaration. The conclusions from the update are similar to those presented in

1 previous Lacy Declarations. There is no substantial new information provided in  
2 the plaintiff's motion or the recent declarations by Dr. Giles and Dr. Lacy that  
3 alter my conclusions and opinions in my first two declarations regarding the  
4 impacts on SRWKs of closing SEAK fisheries and enjoining the prey increase  
5 program.

- 6  
7 5. As previously stated in the 2019 Opinion and based on our analysis, the prey  
8 reductions from the SEAK troll fisheries, particularly in the most important  
9 locations and seasons for the whales, are small and, considered in concert with the  
10 prey increase program, will not jeopardize their survival or recovery. Closing the  
11 SEAK fishery will provide only a small benefit to SRKW. Enjoining the prey  
12 increase program will have a significant negative effect on SRKW. The prey  
13 increase program, designed to support the prey base for SRKW and as  
14 implemented over the last three years, provides a meaningful increase in prey  
15 abundance and benefits SRKW. Closing the SEAK troll fisheries and enjoining  
16 the prey increase program will likely result in a net reduction in prey available to  
17 the whales.

- 18  
19  
20 6. As described in my First Declaration, based on scientific review and guidance,  
21 uncertainties, and the complexity surrounding the relationship between SRKW  
22 and their prey, I find Dr. Lacy's modeled relationship quantifying specific  
23 changes in reproduction or survival metrics from specific Chinook salmon  
24 abundances to be outdated and not based on the best available science. Although  
25 mentioned in Dr. Giles' Declaration, Dr. Lacy did not include the most recent  
26 population updates, including two new calves born in early 2022. The primary  
27  
28

1 assumption in the Lacy Population Viability Analysis (PVA) model that drives  
2 the results reported in the recent Lacy Declaration is based on outdated  
3 correlations of coastwide Chinook abundance and survival or fecundity of  
4 SRKW.

- 5  
6 7. The Pacific Fishery Management Council (PFMC) formed an Ad Hoc  
7 Workgroup, which included a scientist with SRKW PVA modeling expertise, to  
8 evaluate the effects of Council-managed fisheries on SRKW and they made  
9 efforts to quantify these relationships. In their 2020 report to the Council the  
10 Workgroup described their analysis, results, and characterized the uncertainty  
11 (PFMC 2020). They found the previous relationships between Chinook salmon  
12 abundance and SRKW demographic rates, which Dr. Lacy relies on in his model,  
13 have weakened or are not detectable, and therefore we do not rely on them in our  
14 analysis. Prior to the Ad Hoc Workgroup an expert panel (Hilborn et al. 2012)  
15 also cautioned against overreliance on correlative studies or implicating any  
16 particular fishery in evaluating the status of SRKWs. The small SRKW  
17 population size limits the ability to detect a relationship to input into a PVA, the  
18 relationships are likely not constant over time, and we acknowledge that multiple  
19 factors, not just prey abundance, may be impacting the vital rates of the whales.  
20  
21 8. Aside from the problematic quantitative relationship between Chinook salmon  
22 abundance and SRKW population parameters used in the Lacy model, his  
23 conclusions about the general benefits to the SRKW population from closing the  
24 SEAK winter and summer troll fisheries overstate the benefits that would likely  
25 be realized by the whales. Both the Chinook salmon prey and SRKW predators  
26  
27  
28

are highly mobile. Thus, not all of the Chinook salmon caught in SEAK troll fisheries would migrate south into SRKW habitat and those that would migrate south would not all survive or be intercepted by the whales.

9. Dr. Lacy summarizes that there is an overall average 6% reduction in Chinook salmon abundance from all SEAK fisheries and assumes that closing those fisheries would equate to a 6% increase in available prey for SRKW or a 4.8% increase from closing the winter and summer troll fisheries. This is an oversimplification and overestimation. The analysis of SEAK fisheries effects on SRKW and conclusions in our 2019 Opinion considered overall average prey reductions, however, we gave weight to a more detailed seasonal and spatial analysis for three time periods in both coastal and inland habitat areas. When taking SRKW seasonal movements into consideration and times and locations when Chinook salmon are expected to become potential prey for SRKW (i.e., coastal areas during Oct-Apr, inland areas during July-Sep), we estimated that prey reductions from SEAK fisheries would be much lower: average of 0.5% in the coast during winter (up to 1.1%), and an average of 1.8% inland during summer (up to 2.5%). AR 47440-41, 47505.
10. NMFS concluded in the 2019 Opinion that SEAK fisheries would cause adverse effects to the whales by removing prey from their habitat, but not cause injury or mortality that would jeopardize the SRKW population. The conclusions were based on our assessment of prey reductions for all SEAK fisheries, focused on the times and areas most important to the whales, and relied on multiple lines of evidence about the SRKWs' diet, their energy needs, Chinook salmon abundance,



1 how the fisheries will reduce available prey, and how the whales might change  
2 their behavior. In addition to the magnitude of prey reductions, we considered the  
3 context of Chinook salmon abundance levels, including natural variability in  
4 ocean conditions, and also other actions that are being taken to improve the  
5 whales' ability to survive and recovery. We also relied on the conservation  
6 funding program described in the 2019 Opinion.  
7

- 8 11. The conservation funding program considered in the 2019 Opinion included  
9 funding for hatchery production to benefit SRKW by increasing Chinook  
10 abundance (prey increase program), conservation hatchery programs, and habitat  
11 restoration projects to support vulnerable populations of Puget Sound Chinook  
12 salmon with the added benefit of increasing SRKW prey abundance. Hatchery  
13 produced Chinook salmon support the prey base for the whales since the whales  
14 do not distinguish between hatchery produced or wild fish. As described in the  
15 2019 Opinion, hatchery fish often contribute to the salmon stocks consumed by  
16 the whales (Hanson et al. 2010). The design of the prey increase program for  
17 SRKW focuses on achieving a "meaningful increase" in prey abundance with  
18 broad distribution to supplement prey where it is most important to whales (i.e.  
19 coastal areas during Oct-Apr, inland areas during July-Sep) as those times and  
20 areas were identified as most limiting for prey availability. The level of increased  
21 hatchery production (20 million Chinook salmon smolts released annually) for  
22 prey increase funding levels of roughly \$5 million, as described in a NMFS memo  
23 (Dygert et al. 2018), would be expected to increase Chinook salmon abundance  
24 by 4-5% in both inland waters in the summer and in coastal waters in the winter.  
25  
26  
27  
28

12. In the 2019 Opinion we acknowledged the initial delay in increased prey until 3-5 years following the first years of implementation, while hatchery fish mature and then become available to the whales as prey in times and areas that overlap with and are important to the whales. We also recognized that not every Chinook salmon produced would go directly to SRKWs, as there are other factors and predators driving salmon mortality, and in the 2019 Opinion we acknowledged that our ability to fully understand the efficacy and predict performance of the program was limited. We are not able to assign increases in prey availability resulting from the hatchery funding as direct offsets for any particular fishery managed under the Pacific Salmon Treaty agreement (SEAK, U.S. West Coast or Puget Sound) because of the variability in annual reductions of available prey from those fisheries. However, even with these limitations, based on the best available science, we concluded that the prey increase program would provide a meaningful increase in prey abundance and benefit SRKWs.

13. There has been significant progress on funding and implementation of the prey increase program for the benefit of SRKWs. The prey increase program considered in the 2019 Opinion is being implemented (see Third Purcell Declaration) and we anticipate increases in prey abundance are near to or being realized as we reach the 3-5 year maturation time frame following each year of implementation. We will continue monitoring the number of smolts produced by the hatchery programs funded by the prey increase program and other partners, as well as the estimated levels of adult Chinook salmon prey available to the whales,

to evaluate the efficacy of the program in achieving a meaningful increase in prey abundance.

14. The overall abundance of Chinook salmon is variable and affected by ocean conditions and the realized percent increase in prey abundance will be dependent on estimates of the overall abundance of Chinook salmon each year. The funded hatchery production may be most important in a year in which overall Chinook abundance is low, and in such a low abundance year, the percent increase resulting from the funded production may be higher. Although the funded production would still make a contribution in a high Chinook salmon abundance year, the percent increase would be lower if overall Chinook salmon abundance is very high in any year. Nevertheless, this program will provide meaningful benefits for Southern Resident killer whales.

15. In the 2019 Opinion, and also in our recent biological opinion on West Coast salmon fisheries (Attachment A), which analyzes the effects of removing adult Chinook salmon prey that might otherwise be available to the SRKW, as well as in the Risk Assessment completed by the Council Ad Hoc Workgroup (PFMC 2020, Second Purcell Decl. Att. B), we identify that reductions in prey are expected to have the greatest impacts on the whales in low Chinook salmon abundance years. When prey are scarce, the SRKWs likely spend more time foraging compared to periods of high prey abundance. Increased energy expenditure and prey limitation can result in nutritional stress, which has been linked to reduced body condition, and lower birth and survival rates. The increase in abundance anticipated from the prey increase program will contribute to overall

Chinook abundance, and reduce the potential for SRKWs to experience low abundance conditions in general.

16. Enjoining or disrupting the prey increase program will reduce the amount of food available to SRKWs and negatively impact their foraging behavior, energy balance, health and reproduction, particularly in years of low abundance. If the prey increase program for SRKWs is enjoined or disrupted, the hatchery production actions that have been funded by NMFS and implemented in 2020, 2021, and 2022, as well as hatchery production funded by partners, particularly Washington State, as described in Allyson Purcell's Third declaration, would still be expected to increase prey at some level through 2027 as those fish mature; however, additional hatchery production specifically targeted to benefit the SRKW could be compromised in later years. Any disruption in funding would likely result in a gap in additional prey abundance. In the absence of the intended prey increase, there would be lower overall abundance of Chinook salmon and there could be an elevated risk of Chinook salmon abundance falling to the low abundance levels associated with increased risk to the health of the SRKWs.
17. Plaintiff's declarants assert that prey abundance has the largest impact on the population growth rate of SRKWs and that increases in prey abundance are needed for SRKWs to recover, and yet enjoining or disrupting the prey increase program would result in reduced future abundance of prey for SRKWs. Plaintiffs' request for relief is inconsistent with their declarants' assertions. The goal of the prey increase program is to help support increased prey available to SRKWs and support their recovery. It is difficult to precisely estimate the

1 increased risk to the health of SRKW from disrupting the prey increase program  
2 if enjoined, but it could manifest in the whales foraging for longer periods,  
3 traveling to alternate locations, or abandoning foraging efforts. Changes to  
4 foraging behavior could result in SRKWs not consuming sufficient prey to meet  
5 their energetic needs, which could affect the health of individual whales,  
6 reproduction and the status and growth of the population, as cited in the Plaintiff's  
7 declarations and our 2019 Opinion.  
8

- 9 18. As described in the Third Purcell Declaration, ESA consultations have been  
10 completed to evaluate the potential impacts on threatened and endangered salmon.  
11 Therefore, in addition to supporting recovery of SRKWs, we have concluded that  
12 the hatchery production will not jeopardize survival or recovery of listed salmon.  
13

- 14 19. In addition to the reductions in fisheries under the Pacific Salmon Treaty and the  
15 prey increase program, we continue to work on a comprehensive recovery  
16 program that addresses all of the primary threats to SRKW, including vessel  
17 disturbance and contaminants, and not only prey. We also acknowledge that all  
18 of the threats are potential limiting factors, not just prey availability, and that they  
19 are interconnected, as vessels and sound can impact the whales' ability to forage,  
20 access, and consume the prey that are available in their habitat. NMFS Recovery  
21 Plan and other documents such as the Washington State Orca Task Force (Task  
22 Force) 2018 and 2019 reports and recommendations, and the Canadian Recovery  
23 Plan for SRKW, also acknowledge the importance of and interactions between  
24 multiple threats.  
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- 1 20. Dr. Giles describes information on the status of the SRKWs, including the  
2 “vulnerable” status of specific individuals. The designation of “vulnerable”  
3 whales by Washington State is part of their Commercial Whale Watch Licensing  
4 system, which implements a recommendation from the Task Force and highlights  
5 the connection between vessel impacts and prey accessibility. When whales are  
6 identified as “vulnerable” based on body condition or pregnancy, additional  
7 limitations on commercial whale watching are put into place. Limiting whale  
8 watching activities for both “vulnerable” whales and young calves reduces  
9 acoustic and physical disturbance, including impacts on foraging behaviors.  
10
- 11 21. Dr. Giles cites multiple sources of information on Canadian fishery closures,  
12 which seems to imply that there is a direct benefit to the SRKW from all of them.  
13 This oversimplifies and overestimates the benefits to SRKW from Canadian  
14 fishery management actions. Aside from the measures specifically designed to  
15 support SRKW, some of the other closures or fishery reductions Dr. Giles  
16 references take place in rivers (where there is no overlap with SRKW) or support  
17 salmon stocks that do not overlap with and are not part of the diet of SRKW.  
18
- 19 22. Conservation and recovery of SRKW and their Chinook salmon prey is complex  
20 and challenging because there are multiple interacting threats over large  
21 geographic and transboundary landscapes and we have endangered predators  
22 relying on prey, some of which are also threatened or endangered. Both species  
23 face impacts from many human activities, variable oceanographic conditions, and  
24 environmental change in their vast habitats. Recovery programs for both SRKW  
25 and Chinook salmon include a variety of tools and actions that can have short-  
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term or long-term benefits. Significant actions have been taken that are effective in the short term and make the existing abundance of prey more available and accessible to SRKW, including reductions in fisheries to protect salmon and SRKW, and mandatory and voluntary vessel measures that reduce interference with SRKW foraging. Other actions like cleaning up or reducing inputs of harmful contaminants or recovering runs of salmon have a longer-term outlook for realizing benefits to SRKWs. As part of the action considered in the 2019 Opinion, the conservation programs to aid Puget Sound Chinook salmon include continuing conservation hatchery programs and implementing habitat restoration projects. It will likely take many years before ecosystem services of the habitat are restored and they support increased Chinook salmon productivity. The prey increase program for SRKW, however, has already been implemented for multiple years and is increasing the prey available to SRKW now. With three years of funding and implementation, effects evaluated for threatened and endangered salmon, and protections for salmon in place, it fills an important gap until other longer-term actions for salmon and SRKW are successful. NMFS and our Federal, State and Tribal partners recognize the importance of working on actions with both short-term and long-term benefits to the SRKW, including the prey increase program, to help stop the decline of the endangered SRKW population and support their recovery.

23. Enjoining or disrupting the prey increase program would result in fewer Chinook salmon available to SRKW, and increase the risk for harm to SRKW through behavioral and physiological impacts. Disruptions could affect the long-term



support and commitment needed to fund this program and provide benefits to  
SRKW over the next decade and could negatively impact the critical partnerships  
and momentum for recovery and conservation of SRKW and salmon. The prey  
increase program is a critical tool to help address a primary threat to SRKW and  
without it there will be a negative impact on the recovery program for SRKW.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 3, 2022, in Seattle, WA.

BARRE.LYNNE.  
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Lynne Barre

HONORABLE MICHELLE L. PETERSON

**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WASHINGTON  
AT SEATTLE**

WILD FISH CONSERVANCY,

Plaintiff,

v.

SCOTT RUMSEY, *et al.*,

Defendants,

and

ALASKA TROLLERS ASSOCIATION,

Defendant-Intervenor.

and

STATE OF ALASKA

Defendant-Intervenor.

Case No. 2:20-cv-417-RAJ-MLP

THIRD DECLARATION OF  
Allyson Purcell, National Marine  
Fisheries Service, West Coast  
Region

1  
2  
3  
4 I, Allyson Purcell, declare and state as follows:

5 ***Introduction***

6 1. I am the Branch Chief for the National Marine Fisheries Service's (NMFS's) West Coast  
7 Region's Anadromous Production and Inland Fisheries Branch. I previously prepared two  
8 declarations that were submitted in this matter; my first declaration was submitted on May 11,  
9 2020 (First Purcell declaration) and my second declaration was submitted on May 25, 2021  
10 (Second Purcell declaration). These prior declarations described my professional qualifications  
11 and opinions I had developed in this matter up to this point. I do not repeat that material here,  
12 but incorporate it by reference.  
13  
14

15 2. In this third declaration, I provide an update on the Pacific Salmon Treaty's prey increase  
16 program for Southern Resident killer whales (SRKWs), a summary of the Endangered Species  
17 Act (ESA) and National Environmental Policy Act (NEPA) analyses that have been completed  
18 on hatchery production funded via the prey increase program, and the potential impacts of  
19 enjoining or interrupting funding for the prey increase program. In preparing for this declaration,  
20 I have reviewed the Magistrate Judge's Report and Recommendation, the Court's Order  
21 Adopting Report and Recommendation, Plaintiff's Motion for a Final Order on Relief and for a  
22 Temporary Restraining Order and/or a Preliminary Injunction Pending Entry of a Final Order on  
23 Relief, the Third Declaration of Gordon Luikart, Ph.D., the Third Declaration of Lynne Barre  
24 (filed with this declaration) and the Second Declaration of Scott Rumsey (filed with this  
25 declaration).  
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### *Status of the Prey Increase Program*

3. In a previous declaration, I described how the prey increase program for SRKWs was implemented in fiscal year 2020 and 2021 (Second Purcell Declaration). Attachment 1 updates juvenile Chinook release numbers with fiscal year 2020 and 2021 funding and includes information on what was funded in fiscal year 2022. In summary, over \$5.4 million of funds were distributed (after overhead removed) by NMFS in fiscal year 2022 for the prey increase program. More than 19 million juvenile Chinook were released in 2022 as a result of the federal prey increase program and Washington State funding for additional hatchery Chinook production to increase prey for SRKW combined. As described in Attachment 1, NMFS has concluded that the prey increase program is on track to provide the benefits to SRKWs that were anticipated in the 2019 biological opinion on the effects of domestic actions associated with implementing the 2019-2028 Pacific Salmon Treaty Agreement (NMFS 2019).

### *NMFS' Evaluation of the Prey Increase Program*

4. As described in my previous declaration (Second Purcell Declaration) and Attachment 1, NMFS uses a series of criteria when determining which hatchery production to fund as part of the prey increase program for SRKWs. In addition to considering where hatchery production will have the most value to SRKWs, NMFS considers the potential adverse effects of increased production on ESA-listed species. One of the criteria we use in deciding which programs to fund is that increased production cannot jeopardize the survival and recovery of any ESA-listed species. Another criterion is that all increased production must be reviewed under the ESA and NEPA, as applicable, before NMFS funding can be used.

1 5. Attachment 2 summarizes the ESA and NEPA analyses that NMFS has completed on the  
2 effects of the increased production proposals that have been awarded funds to date. In some  
3 cases, the effects of the increased production proposals were fully evaluated in previously  
4 completed ESA and NEPA documents. In other cases, the increased production proposals  
5 required new ESA and NEPA analyses. Each year, NMFS reviews the proposals and determines  
6 which ones need additional ESA and/or NEPA review. As Attachment 2 demonstrates, before  
7 these funds can be utilized, NMFS completes all relevant ESA and NEPA reviews ensuring that  
8 those programs comply with substantive ESA requirements, as well as procedural obligations  
9 under NEPA.  
10

11  
12 6. NMFS has extensive experience evaluating hatchery programs under the ESA and NEPA.  
13 In my 2021 declaration (Second Purcell Declaration), I describe these analyses in detail, and  
14 incorporate that discussion by reference. In this declaration, I will focus on the potential genetic  
15 risks associated with increased hatchery production since that is the focus of the plaintiff's  
16 arguments in their remedy brief and Dr. Luikart's third declaration.  
17

18  
19 7. In the plaintiff's remedy brief, it says the following, "According to NMFS, [proportion of  
20 hatchery-origin spawners (PHOS)] levels that exceed [hatchery scientific review group (HSRG)]  
21 criteria are acceptable only where a wild salmon population is at a high risk of extinction and the  
22 hatchery is used to reduce the short-term extinction risk. AR 10419." This is not NMFS's  
23 position. Optimal PHOS will depend upon multiple factors, such as the importance of the  
24 population to ESA recovery and the fitness differences between hatchery-origin and natural-  
25 origin fish. NMFS considers these factors in its site-specific ESA evaluations. In addition, we  
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1 consider the cumulative impacts of all other hatchery programs that may be contributing to  
2 pHOS for a particular population.

3  
4 8. Our site-specific biological opinions and NEPA documents are the best way to evaluate  
5 risks associated with the prey increase program because it is difficult to understand biological  
6 risks without knowing the project-level details. That is, to fully evaluate effects, we need to  
7 know where the fish will be released, the origin of the broodstock (e.g., local or non-local), how  
8 many natural-origin fish will be included in the broodstock, how will the fish be acclimated and  
9 released, how the returning adults be managed (e.g., will they be removed at a weir), and what  
10 the role of the affected population(s) is in recovery of the species. Our site-specific ESA  
11 analyses ensure that none of the hatchery production funded through the prey increase program  
12 jeopardizes survival and recovery of listed salmon or adversely modify designated critical  
13 habitat.  
14  
15

#### 16 *Impact of Enjoining Funding for the Prey Increase Program*

17  
18 9. It is hard to predict what would happen if funds for the prey increase program are  
19 interrupted or enjoined. Without continued funding, hatchery operators would likely not  
20 spawn addition adult fish next fall to provide increased prey to SRKW. In addition, there are  
21 currently juvenile fish in the hatchery facilities that have been produced using FY 2020, 2021  
22 and 2022 funds. Without continued funding, hatchery operators may not be able to rear these  
23 fish until the time when they would normally be released. If the funds were interrupted or  
24 enjoined, one potential result is that the hatchery operators would use other sources of funds  
25 to rear the juvenile fish in the hatcheries until they are ready for release. Another scenario  
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1 would be that the hatchery operators release the fish early, in which case they would have  
2 lower survival, reducing their potential contribution to SRKW diet. However, another  
3 important biological concern is that if the fish are released early, they would probably not be  
4 externally marked (e.g., adipose fin clip) or tagged. Marking and/or tagging of hatchery-  
5 origin salmon allow us to monitor and manage genetic risks. As an example, in some  
6 tributaries, weirs are used to block the passage of fish so that hatchery-origin fish can be  
7 removed to control pHOS. If the hatchery fish are not marked, they will likely be  
8 indistinguishable from the wild fish and would be passed above the weir to spawn naturally,  
9 which would increase pHOS and could potentially increase genetic risk in those tributaries.  
10

## 11 *Conclusion*

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14 10. It is my opinion that NOAA is implementing the prey increase program in a thoughtful  
15 and careful manner. All increased production proposals are being reviewed in site-specific ESA  
16 and NEPA evaluations before federal prey increase funding is used. As a result, NOAA is able  
17 to ensure that the funding for the prey increase program is not resulting in irreparable harm to  
18 ESA-listed salmon, while providing benefits to endangered SRKW. Interrupting or enjoining  
19 funding for the prey increase program is likely to decrease available prey to SRKW. Interrupting  
20 or enjoining funding for the prey increase program may also increase risks to ESA-listed  
21 Chinook species if it results in hatchery-origin fish being prematurely released from the  
22 hatcheries without being marked or tagged.  
23  
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1 I declare under penalty of perjury that the foregoing is true and correct. Executed on  
2 October 3, 2022), in Portland, OR.

3  
4 PURCELL.ALLYSON  
5 N.O.1365850964

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